

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
21 July 2005 (21.07.2005)

PCT

(10) International Publication Number  
WO 2005/065195 A3(51) International Patent Classification<sup>7</sup>: C07C 237/00,  
C07D 213/02, A61K 31/18, 31/44Jennifer, R. [US/US]; 126 East Lincoln Avenue, Rahway,  
New Jersey 07065-0907 (US).(21) International Application Number:  
PCT/US2004/042173(74) Common Representative: MERCK & CO., INC.; 126  
East Lincoln Avenue, Rahway, New Jersey 07065-0907  
(US).(22) International Filing Date:  
15 December 2004 (15.12.2004)(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,  
ZA, ZM, ZW.(25) Filing Language: English  
(26) Publication Language: English  
(30) Priority Data:  
60/531,423 19 December 2003 (19.12.2003) US(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).(71) Applicant (for all designated States except US): MERCK  
& CO., INC. [US/US]; 126 East Lincoln Avenue, Rahway,  
New Jersey 07065-0907 (US).

## Published:

— with international search report

(72) Inventors; and  
(75) Inventors/Applicants (for US only): BARROW, James,  
C. [US/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US). COBURN, Craig, A. [US/US]; 126  
East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US). NANTERMET, Philippe, G. [FR/US]; 126 East  
Lincoln Avenue, Rahway, New Jersey 07065-0907 (US). SELNICK, Harold, G. [US/US]; 126 East Lincoln Avenue,  
Rahway, New Jersey 07065-0907 (US). STACHEL,  
Shawn, J. [US/US]; 126 East Lincoln Avenue, Rahway,  
New Jersey 07065-0907 (US). STANTON, Matthew, G.  
[US/US]; 126 East Lincoln Avenue, Rahway, New Jersey  
07065-0907 (US). STAUFFER, Shaun, R. [US/US]; 126  
East Lincoln Avenue, Rahway, New Jersey 07065-0907  
(US). ZHUANG, Linghang [CN/US]; 126 East Lincoln  
Avenue, Rahway, New Jersey 07065-0907 (US). DAVIS,(88) Date of publication of the international search report:  
6 April 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PHENYLAMIDE AND PYRIDYLAMIDE BETA-SECRETASE INHIBITORS FOR THE TREATMENT OF  
ALZHEIMER'S DISEASE

(57) Abstract: The present invention is directed to phenylamide and pyridylamide derivative compounds which are inhibitors of the beta-secretase enzyme and that are useful in the treatment of diseases in which the beta-secretase enzyme is involved, such as Alzheimer's disease. The invention is also directed to pharmaceutical compositions comprising these compounds and the use of these compounds and compositions in the treatment of such diseases in which the beta-secretase enzyme is involved.

A3

WO 2005/065195 A3